# Status of the Plan for a State Telecommunications Network

Report to the Legislature

## by the Telecommunications Planning Group

General Services Commission

Department of Information Resources

Comptroller of Public Accounts



October 1, 1998 Austin, Texas

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## Mission Statement for the Telecommunications Plan

The *Texas Government Strategic Plan for Telecommunications Services* will establish the framework for a state telecommunications network that will effectively and efficiently meet the long-term requirements of state government for voice, video, and computer communications, with the goal of achieving a single, centralized telecommunications network for the state.

## Status of the Plan for a State Telecommunications Network

Report to the Legislature by the Telecommunications Planning Group

### Purpose of Report

The 75<sup>th</sup> Texas Legislature required the Telecommunications Planning Group (TPG) to develop a plan for a state telecommunications network with the goal of achieving a single, centralized telecommunications network for state government. The legislation further requires the TPG to report biennially to the Legislature, not later than October 1 of each even-numbered year, on the status of the current plan for a state telecommunications network and on the progress state government has made toward accomplishing the goals of the plan.

The Legislature also named several state agencies to formally advise the TPG and attend TPG meetings. The TPG completed the *Texas Government Strategic Plan for Telecommunications Services* (Telecommunications Plan) with the assistance of staff from the Advisory Agencies and other organizations the TPG added to the advisory group in order to receive a diverse spectrum of input and consultation on statewide telecommunications issues. The following organizations provided input to the Telecommunications Plan:

#### Legislative Advisory Agencies

- Texas Education Agency
- Texas Higher Education Coordinating Board
- Texas A&M University System
- University of Texas System
- Telecommunications Infrastructure Fund Board
- Texas State Library and Archives Commission

#### Other Agencies/Organizations Invited by TPG

- Department of Public Safety
- Health and Human Services Consolidated Network
- Office of Court Administration
- Texas Association of Counties
- Texas Municipal League
- Texas State Technical College (community and junior college interests)
- Texas Tech University

- Texas Telemedicine Educational Consortia
- University of Houston

The TPG understood that the legislative intent of building a consolidated state government telecommunications network was to address both bandwidth and statewide connectivity. The current TEX-AN III network consolidated the state agencies' and universities' telecommunications bandwidth on a single network. This addresses the bulk procurement of services in order to reduce state costs. However, the current network is not capable of efficiently meeting the future application bandwidth requirements of state government and requires that the state plan for a new high-speed, fiber-technology-based infrastructure, incorporating technologies such as SONET (Synchronous Optical Network) or ATM (Asynchronous Transfer Mode). This will be addressed with implementation of the proposed TEX-AN 2000 network, scheduled to begin in calendar year 1999.

The TPG is also required to plan for statewide connectivity for required agency telecommunications services in order to achieve a single consolidated network. In order to accomplish this, all agencies would be required to use a single data network for all connectivity requirements. The Telecommunications Plan addresses this requirement, but also identifies several issues that may make a single data network inefficient for some agency networks.

This report presents an update on the status of establishing a single, consolidated telecommunications network for state government. The report includes a summary of the major initiatives undertaken in implementing the Telecommunications Plan, a update on the progress toward accomplishing the goals, and a summary of the issues the state must address to implement and support a consolidated infrastructure.

### Status: Major Initiatives

Consolidation of Telecommunications Service Bureaus

In April 1997, the Department of Information Resources (DIR) and the General Services Commission (GSC) entered into an interagency contract whereby DIR transferred to GSC all existing telecommunications support functions provided to other agencies by DIR's Statewide Telecommunications Services Division. All necessary contract items were completed in May 1998. The transfer included:

- staff and FTE positions
- all equipment and infrastructure

- existing Statewide Telecommunications Services contracts
- a commitment that DIR would not re-create similar support functions for other agencies in the future

The consolidation of the service bureaus benefited the state by establishing a single entity to provide all networking and telecommunications services to the state. This partially addressed a Texas Performance Review recommendation to consolidate all telecommunications service bureaus (the Health and Human Services Consolidated Network was not consolidated). The consolidation has allowed the TPG to concentrate on the provision of services without conflicts of interest between the TPG parties involved. The consolidation has also allowed GSC to expand the data and video services for state agencies and universities without having to compete with another state provider.

The consolidation helps reduce state costs in the following areas:

- Eliminates cost for duplicative equipment required for a statewide infrastructure:
- Reduces duplicative administrative staffing needs and helps the state concentrate technical services and personnel in a single area, which also addresses some recruitment and retention issues,
- Eliminates duplicative circuit bandwidth requirements to support redundant networks, and
- Increases the bulk purchasing power of GSC in working with telecommunications and Internet vendors.

The consolidation of the telecommunications service bureaus is a positive step in meeting the legislative mandates.

Statewide Data Network on TEX-AN and Cooperative Initiative with State Universities

In 1996, GSC implemented a statewide data network to support the Legislature's requirements for access from the district offices. GSC implemented the network with support of most of the Regional Education Service Centers (RESC) and installed most of the data router hubs at RESC locations. This foresight facilitated the connection of local government entities, specifically schools and libraries, for statewide and Internet access. Grants awarded by the Telecommunications Infrastructure Fund Board (TIFB) for Internet access have accelerated the growth of the statewide data network.

As part of its function to provide support and service, GSC has purchased direct Internet access for the statewide data network. This has been done in

coordination with the state universities. Current plans include the use of two T3 circuits for the state network; two T3 circuits for the University of Texas, in order to support the Texas Higher Education Network (THENet); and another T3 circuit for Texas A&M University in College Station. Each T3 circuit supports approximately 45 Mbps bandwidth.

The coordination of access has allowed GSC and the universities to:

- Present a single network for state agencies' access to the Internet
- Represent the state as a single intranet to the rest of the Internet community, facilitating router configurations and address distribution throughout the Internet;
- Allow for the exchange of technical information and planning for future needs of the state between the combined staffs
- Reduce the overall costs for access connections to the Internet

#### Partnership with TIFB on an Educational Infrastructure

GSC, the Telecommunications Infrastructure Fund Board (TIFB), and the Texas Education Agency (TEA) have partnered to build an educational infrastructure that will ensure low rates for statewide and Internet access for schools, libraries, and other eligible TIFB clientele. In July 1998, the TIFB agreed to contract with GSC and TEA for the educational infrastructure. The TIFB funding for an educational infrastructure requires the transport and infrastructure to be provided by GSC and the educational content to be delivered by TEA.

TIFB contracted with GSC to help build the next generation network for the state. This network will replace the existing TEX-AN III network that supports state agencies, universities, and local political entities. TIFB funding in the amount of \$12.5 million will be used to assist in converting the existing TEX-AN III network to a fiber-based infrastructure. The new fiber-based network, referred to as TEX-AN 2000, will allow for up to fourteen times the bandwidth to be purchased at two to three times the costs of the existing network.

The funding ensures that GSC will serve TIFB clientele at the current low rates for statewide access to educational information and the Internet. These entities will also be able to take advantage of other GSC services (long distance services, 800 services, central administration, one-stop service for all telecommunications needs, contracted rates for bulk equipment purchases, etc.). The total cost for the TEX-AN 2000 conversion is estimated at \$25 million and implementation is scheduled to begin in 1999.

TIFB also contracted with TEA to build data warehouses with the TAAS (Texas Assessment of Academic Skills) and PEIMS (Public Education Information Management System) databases. TAAS and PEIMS data is currently collected by TEA, but is not formatted for easy querying by the school districts. Currently, districts have to purchase specialty programs to manipulate the data for their needs. The data warehouses and more refined databases in specific information areas, referred to as data marts, will allow TEA to validate and standardize data formats to facilitate district use of the information. TEA also received funding to build an interface from the TEA system to the educational infrastructure being implemented by GSC.

#### Planning for TEX-AN 2000

GSC is in the process of planning the design for the TEX-AN 2000 network. GSC has completed two major milestones toward this goal:

- Determined how costs for the new network are to be addressed without raising rates of existing TEX-AN customers; and
- Gathered data to determine the agency functional requirements needed to detail the specifications for the TEX-AN 2000 network.

The Telecommunications Plan identifies funding of the new network as a major issue in implementing TEX-AN 2000. The conversion from TEX-AN II to TEX-AN III required GSC to raise rates to agencies and universities using TEX-AN services, in order to pay for the dual infrastructure during the conversion from the old network to the new backbone. During this conversion, GSC needed to pay for circuits on both networks, and therefore, costs were passed on to the TEX-AN customers.

In order to address this issue, GSC estimated a cost of \$25 million to build a SONET-based infrastructure to address current and future customer demands on the backbone infrastructure. This estimate is based on projected growth, current costs for similar services, and assumptions made for planning purposes (until a final design is completed the type of infrastructure and bandwidth requirements will not be finalized). This cost was needed for planning purposes, but does not commit GSC to a SONET infrastructure. Instead, GSC will develop functional requirements and specifications for the network and allow the vendor community to propose the best solutions to meet the state's needs. In order to pay for the projected amount, GSC and the TPG were able to break down revenue as follows:

■ GSC contracted for "postalized" rates with Southwestern Bell Telephone. This means that the state will pay a set price for any circuit (56 Kbps, T1, etc.) ordered from Southwestern Bell within a LATA (Local Access and Transport Area). The contracted rates ensure state savings when

compared to non-postalized rates. In order to pay for the TEX-AN 2000 implementation, GSC is retaining the savings, in lieu of passing the savings on to the agencies.

Additionally, over-collection for other TEX-AN services is being accumulated to address costs for implementing the new network. Finally, contributions by some of the state university systems add to the total amount of \$12.5 million dollars being contributed by state agencies and universities.

■ The interagency contract between GSC and TIFB will address the remaining \$12.5 million estimated to build the new network. The TIFB funding will address all schools and libraries currently on TEX-AN that also receive House Bill 2128 rates. The funding ensures that rates for existing TIFB clientele using TEX-AN are not raised and that the low rates will be available for future TIFB grant projects.

In addition to addressing the cost issue, GSC is well into the process of evaluating the existing network in order to plan for the implementation of TEX-AN 2000. As a follow-up to working with the TPG on developing the Telecommunications Plan, GSC has hired a telecommunications engineering firm to assist in the process of implementing the requirements in the plan. The consultant is required to complete the following phases:

- The data collection process and an assessment of areas in the current network that may produce additional savings.
- The setup of focus sessions with TEX-AN users and telecommunications vendors to determine the TEX-AN 2000 requirements.
- The development of the requirements and specifications for the TEX-AN 2000 network.
- The completion and release of a Request for Offer with the specifications for telecommunications vendors to bid on the TEX-AN 2000 network.

GSC is currently performing the data collection and focus sessions of the TEX-AN 2000 process.

## Progress on the Telecommunications Plan Goals

The Telecommunications Plan identifies the following goals in implementing a consolidated statewide infrastructure:

- 1) Provide citizen access to government information and services
- 2) Facilitate the exchange of government information
- 3) Provide the platform for access to educational resources
- 4) Provide essential network services to government agencies

- 5) Consolidate agencies' statewide network requirements
- 6) Centralize access to network services and information
- 7) Provide open interfaces for connectivity

The goals are being addressed by the implementation of the TEX-AN 2000 network and other state government efforts as identified below.

#### Goals 1 and 2: Citizen Access and Interagency Exchange of Information

State agencies and universities are dependent on their information infrastructures in order to provide information and services to the public. The infrastructure is also the key for the exchange of information among the agencies. TEX-AN 2000 will support the agency and university requirements and provide the infrastructure for future growth.

The use of the Internet by the state has facilitated the exchange of information. Internet applications such as web sites and electronic mail are now considered common interfaces for communicating with the public, supplanting previous automation technologies like kiosks. Additionally, the implementation of electronic commerce between the state and private business partners will depend on the growth of this communications medium.

Keys in the implementation of TEX-AN 2000 to enable access and exchange of information include:

- Sufficient bandwidth to meet the agency requirements, provided at bulk purchase rates;
- Direct and increased access to Internet network access points, with the state being its own Internet service provider;
- Statewide connectivity to and interoperability with the network infrastructure, in order to provide services at all state locations and to different types of systems; and
- Secure network environment to ensure secure access and privacy of information.

These requirements are part of the review considerations in the TEX-AN 2000 process. As part of this effort, the TPG has involved local government organizations (Texas Municipal League, Texas Association of Counties, etc.) to assist in the planning for TEX-AN 2000.

#### Goal 3: Platform for Access to Educational Resources

As previously discussed, GSC is working with all levels of the educational community to ensure the statewide network infrastructure will support education needs. Major efforts and developments include:

- Collaboration between TPG and the Advisory Agencies, including major state universities, TEA, THECB and the Texas State Library;
- GSC and university coordination of Internet requirements for the state;
- Contracting of TIFB with GSC and TEA to support an educational infrastructure on TEX-AN 2000; and
- Implementation of the state data router network for the statewide intranet at fourteen RESC locations and partnering with the RESCs for provisioning of Internet connectivity with the school districts.

TEX-AN 2000 will build on these initiatives to continue to address these needs.

Goals 4, 5, and 6: Meeting Agency Requirements—Essential Network Services, Consolidated Requirements, and Access to Centralized Information and Services

The Telecommunications Plan identifies issues with the existing billing and support mechanism for TEX-AN III. User concerns include the delay of the billing process and the need to automate more of the detailed billing information to expedite the process. Additionally, agencies have requested service level agreements for their network support.

Most of the service issues are due to the rapid expansion of TEX-AN to support local government entities, the expansion of services, and the need to provide ubiquitous service across the state. Of the more than 600 TEX-AN customers, only one-third are required to use TEX-AN. The remaining 400 entities are local government customers, including school districts, libraries, and city government. These entities use TEX-AN voluntarily in order to take advantage of the reduced rates, access, and central services. However, this growth requires an expansion of central services to meet the demand and support expected by the TEX-AN users. This expansion includes staffing, an automated tele-management system, and a central network management system to address outages on the network.

The TEX-AN 2000 process will ensure agency and university issues are addressed. As previously discussed, in order to determine the functional requirements of the state, GSC has awarded a contract to a private consultant to assist in developing the TEX-AN 2000 specifications. Specific efforts include:

- Statewide focus sessions for direct input into the process from the TEX-AN users;
- Development of an organizational staffing and skills chart for the GSC Telecommunications Services Division to ensure customer support issues are incorporated in staffing plans;

- Incorporation of the Request for Proposal for a tele-management system, to address billing/accounting issues, into the TEX-AN 2000 process to ensure that vendor responses address these issues and provide the platform to implement the system;
- Inclusion of central network management system requirements in the TEX-AN 2000 specifications to ensure the state can avoid and/or isolate potential network problems.

The TPG also identified service level and performance issues as a concern of agencies and universities. State entities, who are required to use TEX-AN, must be assured that there are appropriate recourses for addressing specific service level or performance issues. GSC is addressing these concerns through several initiatives:

- Establishment of a mailing list for TEX-AN users to discuss and exchange ideas,
- Implementation of a project process and user coordinators to assist agencies in telecommunications project implementations;
- Improvements at GSC's Network Operations Center and the Help Desk to address trouble calls and provide a means to track the status of trouble tickets in order to update users on the problem status;
- Adoption of open waiver policies for some services not provided on TEX-AN (Intra-LATA long distance and dial-around services during network outages), so that each agency does not have to apply for waivers on these services.

Additionally, GSC has implemented a Customer Relations Section. The goals of this section are to address service levels and performance issues in order to meet the TEX-AN users' needs and address customer satisfaction.

#### Goal 7: Open Connectivity

The state infrastructure will be based on open standards for interoperability. Interoperability on the network is a key for providing information exchange and connectivity statewide. In order to address some of the support issues, GSC encourages the development of regional and community-of-interest networks that can better support local user needs. In order to connect and support these regional networks, the statewide infrastructure will need to connect to different network architectures and vendor equipment. TEX-AN 2000 is being designed with this requirement in mind and the final design, to be completed in the fall of 1998, will address this requirement.

## Issues Affecting the Statewide Infrastructure

The Telecommunications Plan identifies various issues the state will need to address in implementing and supporting TEX-AN 2000. As previously discussed, the cost issue has already been addressed by GSC. In addition, the major issues facing the state infrastructure include:

- Consolidation of all agency networks
- Serving non-governmental entities to meet agency service and business partnership requirements
- Issues with costs for the "last mile" and special needs for rural Texas
- Security threats to the infrastructure
- Year 2000 embedded infrastructure and software issues

These issues will also be reported to the Legislature in DIR's 1998 Biennial Report on Information Resources Management (Biennial Report) to be published November 1, 1998. The following text is taken from a preliminary draft of the document:

From the 1998 DIR Biennial Re	port	

#### **Issue 3—Telecommunications**

During its review of the current status of the state's telecommunications infrastructure, the TPG identified several issues, including creating a single, statewide data network; providing services to non-governmental entities; and addressing local exchange telecommunications costs in remote and rural areas—also known as "last-mile" costs.

#### **Assessment of the Problem**

The TPG is legislatively required to develop a plan for a state telecommunications network with the goal of achieving a single, centralized telecommunications network for state government. This requirement is intended to address two issues:

- $\blacksquare$  reduction of costs by the procurement of bulk transmission services for the state
- consolidation of the various redundant data networks previously implemented by agencies across the state

Consolidation of the backbone transmission services was accomplished on the existing TEX-AN network. However, this did not address the consolidation of the individual agency data networks. As part of the telecommunications services consolidation effort, GSC has developed a statewide infrastructure for data connectivity. The network has been built to serve agency requirements, but also supports local government access needs. GSC stresses the goal of voluntary compliance in the use of the data network. This will be accomplished by providing high customer service at low costs. Agencies have begun migrating to the GSC network voluntarily, as their needs require. Other

agencies with data networks coordinate their efforts with GSC in order to reduce duplication in serving customers.

In theory, consolidation of all data networks would be the correct approach for the state. However, the TPG needs flexibility in allowing some of the agencies to maintain independent data networks in order to address particular agency requirements or use of technology. For example, the health and human services agencies have consolidated twelve agency data networks into a single network, referred to as the Health and Human Services Consolidated Network (HHSCN). This network serves the data communications needs of all of the health and human services agencies and has resulted in the cost avoidance of more than \$6 million since implementation. The HHSCN still uses bandwidth from GSC's TEX-AN network, which applies to the bulk purchases needed to provide discounts for TEX-AN. Consolidation of this and other data networks, such as the Office of the Attorney General's Child Support network and the university networks, into a single data network may prove inefficient. However, these networks should be open for consolidation, when appropriate.

In the Telecommunications Plan, the TPG noted that state agencies network by community-of-interest groups. These groups can be identified as education, health and human services, criminal justice, and general government. The needs of K–12 education, such as accessing the Internet and downloading grade-specific information, coincide with neither the high security requirements of criminal justice agencies nor the privacy issue of health and human services. The TPG must review carefully the needs of each agency in developing a plan for building a consolidated network.

Additionally, GSC requires some flexibility in serving non-government customers. As the GSC network grows to meet state and local government interests and to support TIFB clientele, instances arise where GSC may need to provide services to non-government entities. Examples include providing support for telemedicine services to rural and remote communities where costs for telecommunications are higher and providing communication links to state business partners for electronic commerce initiatives.

State university and agency projects in telemedicine, along with projects funded by TIFB grants, require connectivity to local hospitals and doctors' offices. In some rural areas, state networks are the only source for local business access to the Internet. The state is also investigating the requirements to implement electronic commerce. Restrictions on providing TEX-AN services to state and local government may limit opportunities for implementing electronic commerce initiatives. Some flexibility may be required to promote these initiatives. Currently, there is no process for GSC to review a request to support non-government entities on the TEX-AN network. A process with built-in oversight, including review by the common carriers, would facilitate the provision of services to these areas.

Finally, due to the lack of competition for telecommunications services in rural areas, it is difficult for the state to ensure reasonable rates for services in these areas. GSC is working with Southwestern Bell Telephone and GTE Telephone (GTE) to provide a single rate for services to state agencies in these regions, regardless of the distance for connecting sites to the state infrastructure. Southwestern Bell and GTE have also

elected to apply for incentive regulation under provisions of House Bill 2128, 74<sup>th</sup> Legislature.<sup>3</sup> This requires that electing companies provide reduced telecommunications rates, collectively referred to as House Bill 2128 rates, for schools, libraries, and telemedicine projects. These rates, along with other educational discount rates, address costs for the last mile. However, House Bill 2128 rates only are applicable in areas served by Southwestern Bell and GTE. Areas not served by Southwestern Bell and GTE are served by independent telephone companies or cooperatives formed to serve most Texas rural and remote locations. Furthermore, the House Bill 2128 rates are due to expire after the fifth year of incentive regulation.

The high costs for services in remote areas leads to reduced access to enhanced services and to the Internet, when compared to urban areas. Government must pay higher rates in order to provide these services to its constituents. Programs such as TIFB grants and the national Educational Rate (E-Rate) program administered by the Federal Communications Commission provide funding to eligible entities to assist in payment for services in these areas. However, the future status of the E-Rate program is unclear and TIFB grants are targeted for one-year projects that enable eligible entities to implement technology initiatives. The state needs to consider options to redress ongoing costs for the last mile in rural areas.

GSC will re-bid services for the TEX-AN network in fiscal 1999. As part of this process, GSC will negotiate rates with the local exchange carriers for rural areas and will evaluate technologies, such as satellite transmission, for serving disparate areas in the state. However, it is difficult to negotiate lower rates in areas served by a single telecommunications vendor and satellite technology may not be the best solution for all programs. Additionally, local government and school districts are not required to use the services from GSC.

The Biennial Report added the following recommendations that the Telecommunications Planning Group also supports:

From	n the 1998 DIR Biennial Report	
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#### Recommendations

3.1 The Telecommunications Planning Group should be given the flexibility to determine when and if agency networks need to be consolidated on the state data network infrastructure. Current law requires the TPG to report to the Legislature on the status of the network consolidation and development of the statewide infrastructure. There should be a process for the TPG to allow agencies to request a waiver from consolidation onto the single statewide infrastructure. The TPG would develop guidelines for agencies to follow outlining circumstances and a process for such requests. A list of the agencies granted waivers would be included in the report to the Legislature.

- 3.2 The Legislature should consider granting the TPG authority to allow non-governmental entities to contract directly with GSC for TEX-AN services. With this TPG oversight, GSC would have the flexibility to allow private/public partnerships in providing telecommunications services. Such partnerships would only be allowed with TPG approval and only when in the best interest of the state and local community. A process for input from the telecommunications carrier community should be implemented to ensure vendor concerns and issues are addressed.
- 3.3 If the proposed educational infrastructure is completed on the TEX-AN network, schools and libraries should be encouraged to use the state infrastructure to the fullest extent possible, while allowing local government to control the process. Areas where this could be applied include requiring state agency grants involving telecommunications services, such as the TEA and TIFB grants, to include the use of the TEX-AN network for these services. Exemptions could be approved through the grant review process or another mechanism implemented with support of the grant agencies involved. The larger volume of usage of the network will lead to future reductions in rates for all users of the network.
- 3.4 Legislation to address the last-mile costs, such as a five-year extension of the incentive regulation rates (House Bill 2128 rates), should be considered. As part of the design for the TEX-AN network, GSC is preparing a study on how to address last-mile costs. The study, with recommendations, should be completed before the 1999 legislative session. In order to provide cost-effective services for local government entities in remote areas, legislation based on the GSC study should be considered.

The Biennial Report also identifies the need for the state to address network security issues. As the state infrastructure is used for the provision of services and access to information, it leaves itself vulnerable to computer attacks by outside entities. The following initiatives may open the infrastructure to security lapses or vulnerabilities:

- Consolidation of all networks into a single infrastructure—the more users on a single network, the more possibilities of security breaches and access to confidential information.
- Open connectivity—one of the goals of the statewide infrastructure, which, by definition, allows for access into the network.
- Electronic commerce—the growing trend for providing services and completing financial transactions on-line requires agencies to interact openly on the network.
- Explosion of Internet access—the need for the state to access information on the Internet also allows for access from entities on the Internet into the state infrastructure, unless precautions are implemented.

The Biennial Report makes the following recommendation regarding the Electronic Commerce issue:



#### **Issue 4—Electronic Commerce**

#### Recommendations

4.1 Texas should establish a central security response capability for agency and statewide networks. GSC, as the manager of the statewide network, TEX-AN, should ensure that there is a security response team in case of security breaches on the statewide network. Additionally, agencies with their own data networks should coordinate security efforts with GSC and ensure that they have their own security response capability.

The Telecommunications Planning Group recommends that the initiatives referenced above be implemented to address the issues facing the state infrastructure.

#### TEX-AN Year 2000 Issues

Year 2000 (Y2K) issues also have implications on the statewide infrastructure. Approximately seventy local exchange carriers and six inter-exchange carriers support TEX-AN III. GSC has requested that all carriers supporting the TEX-AN network report on their Year 2000 status and provide their assurance of compliance. GSC is sending quarterly letters to the carrier communities reminding them of the state's Year 2000 requirements.

GSC will continue to work with the DIR Year 2000 Project Office to report any outstanding items that may impact the agencies. GSC is also working with DIR and the Year 2000 Project Office in educating local government on telecommunications issues that will need to be addressed. Part of the GSC and Year 2000 Project Office effort will include contingency planning for the infrastructure.

Finally, to the extent that the new network is deployed before 2000, TEX-AN 2000 will be Y2K-compliant.

### Conclusion

The state is well under way in meeting the vision and goals of the Telecommunications Plan. The implementation of TEX-AN 2000 in fiscal years 1999–2000 will ensure the state is well positioned to provide services and access to public information to the state citizenry. In doing so, the state must be prepared to address issues with the expansion of telecommunications services and connectivity.

The TPG will continue to report to the Legislature on a biennial basis in order to keep the leadership informed of the status of the TPG mandates and issues affecting the statewide infrastructure.

### Notes

<sup>&</sup>lt;sup>1</sup> Tex. Gov't Code Ann. § 2054.204 (Vernon 1998).

<sup>&</sup>lt;sup>2</sup> Tex. Utilities Code Ann. § 57 (Vernon 1998).

<sup>&</sup>lt;sup>3</sup> See Note 2.